

## P A T E N T     C L A I M S

1. A liquid fuel supply unit (101; 101') for a liquid fuel burner (106) with a gas atomizing nozzle  
5 (105), the supply unit (101; 101') comprising a liquid fuel feed pump (102; 102') and a compressor (104; 104'), said liquid fuel feed pump (102; 102') having an inlet (21) connectable to a liquid fuel conduit from a liquid fuel source, such as an oil tank, and  
10 an outlet connectable to an inlet (24) of a liquid fuel metering device (103; 103'), said compressor (104; 104') having an outlet being connectable to the gas atomizing nozzle (105) of the liquid fuel burner (106), c h a r a c t e r i z e d in that  
15 the unit comprise a common drive shaft (3; 3') for the liquid fuel feed pump (102; 102') and the compressor (104; 104').

2. A supply unit according to claim 1, c h a r a c t e r i z e d in that the liquid fuel  
20 feed pump (102; 102') and the compressor (104; 104') both comprise a rotary impeller (8; 2) mounted on the common drive shaft (3; 3').

3. A supply unit according to claims 1 or 2, c h a r a c t e r i z e d in comprising a motor  
25 (30; 30') with a rotor connected to the common drive shaft (3; 3').

4. A supply unit according to claim 3, c h a r a c t e r i z e d in that the motor is placed between the compressor and the liquid fuel  
30 feed pump.

5. A supply unit according to any of claims 1-4, c h a r a c t e r i z e d in that the common drive shaft comprises interconnected shaft elements.

6. A supply unit according to any of the claims  
35 1-5, c h a r a c t e r i z e d in comprising a modulatable liquid fuel metering device (103; 103').

7. A supply unit according to claim 6, c h a r a c t e r i z e d in that the liquid fuel

metering device (103') comprise a metering orifice (203) and a valve (202; 206).

8. A supply unit according to claim 6, characterized in that the liquid fuel  
5 metering device (103) is a metering pump.

9. A supply unit according to claim 8, characterized in that the metering pump is a piston pump activated by an electro magnet (17)

10. A supply unit according to one of the  
10 claims 1-9, characterized in that the compressor (104; 104') is a vane pump.

11. A supply unit according to one of the claims 1-10, characterized in that the liquid fuel feed pump (102; 102') is a gerotor pump.

15 12. A liquid fuel burner system comprising a burner device (106) with a gas atomizing burner nozzle (105), a fan (107) for supplying combustion air to the burner device (106), and a liquid fuel supply unit (101; 101') said unit being a constructional  
20 and exchangeable unit and comprising a liquid fuel feed pump (102; 102') and a compressor (104; 104') having a common drive shaft (3; 3'), the system further comprising a modulatable liquid fuel metering device (103; 103') fed by said liquid fuel feed pump  
25 (102; 102'), said gas atomizing burner nozzle (105) being connected with the liquid fuel metering device (103; 103') and the compressor (104; 104') for receiving liquid fuel and atomising gas.

13. A liquid fuel burner system according to  
30 claim 12, characterized in that the burner device (106) has a minimum heat output of less than 10 kW.